

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference

F602PCT

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/JP2004/016044

International filing date (day/month/year)

28.10.2004

Priority date (day/month/year)

31.10.2003

International Patent Classification (IPC) or both national classification and IPC

Applicant

MURATA MANUFACTURING CO., LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/IP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/016044

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐

a sequence listing

☐

table(s) related to the sequence listing

b. format of material

☐

in written format

☐

in computer readable form

c. time of filing/furnishing

☐

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2004/016044

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	4-6, 8	YES
	Claims	1-3, 7, 9	NO
Inventive step (IS)	Claims	4-6	YES
	Claims	1-3, 7-9	NO
Industrial applicability (IA)	Claims	1-9	YES
	Claims		NO

2. Citations and explanations:

Claims 1-3, 7-9

Document 1: JP 10-247601 A (Murata Manufacturing Co., Ltd.), 14 September 1998, full text, all drawings & DE 19806296 A1 & KR 255712 B1 & US 6008717 A

Document 2: JP 5-243007 A (Murata Manufacturing Co., Ltd.), 21 September 1993, full text, all drawings

Document 1 describes an NTC thermister (see paragraph 0006, Fig. 12) formed at a position overlapping a gap. Calling some inner electrodes a first group and calling the other inner electrodes a second group is merely a matter of design variation. Therefore the inventions of claims 1-3 appear to include the art described in document 1.

Also, document 1 describes "The first and the second opposing electrodes and the inner electrodes of a laminated-type NTC thermister element can be appropriately grouped, like NTC thermister element 31, and the way of grouping them is arbitrary" (paragraph 0058). Therefore combining an NTC thermister formed at a position overlapping a gap as an opposing electrode described in document 1; an inner electrode formed at a position different from the gap; an inner electrode comprised of a first outer electrode connected to a first outer electrode and of a second inner electrode connected to a second outer electrode and disposed so as to overlap the first and the second inner electrodes (see document 1); and an inner electrode provided with an unconnected-type inner electrode disposed so as to overlap a first and a second split inner electrodes (see document 2) could easily be achieved by a person skilled in the art.

Claims 4-6

Disposing at a position to overlap the closest gap between a plurality of groups with different inner electrode shapes is not described in any of the documents cited in the ISR and is not obvious to a person skilled in the art.